

FIG. 1

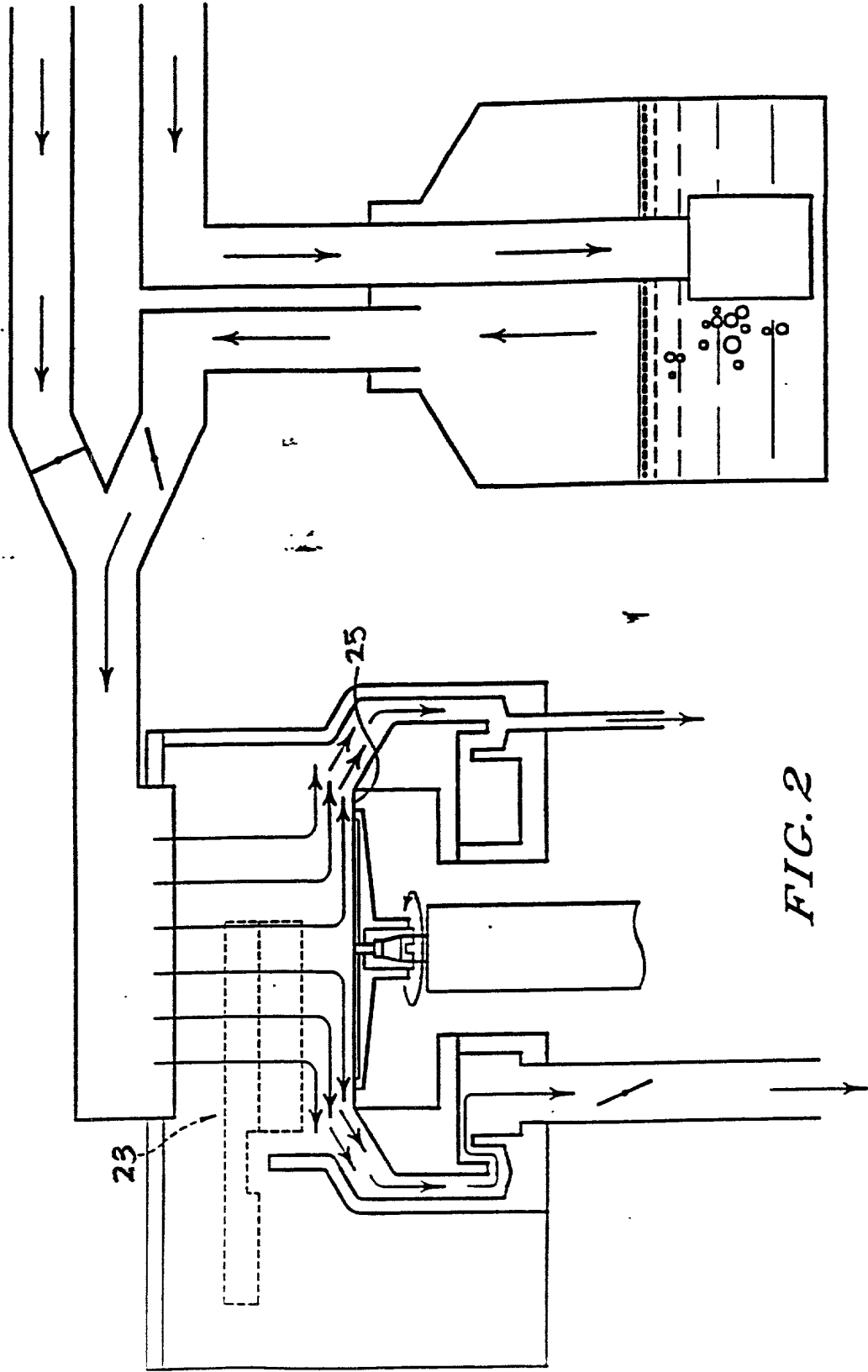


FIG. 2

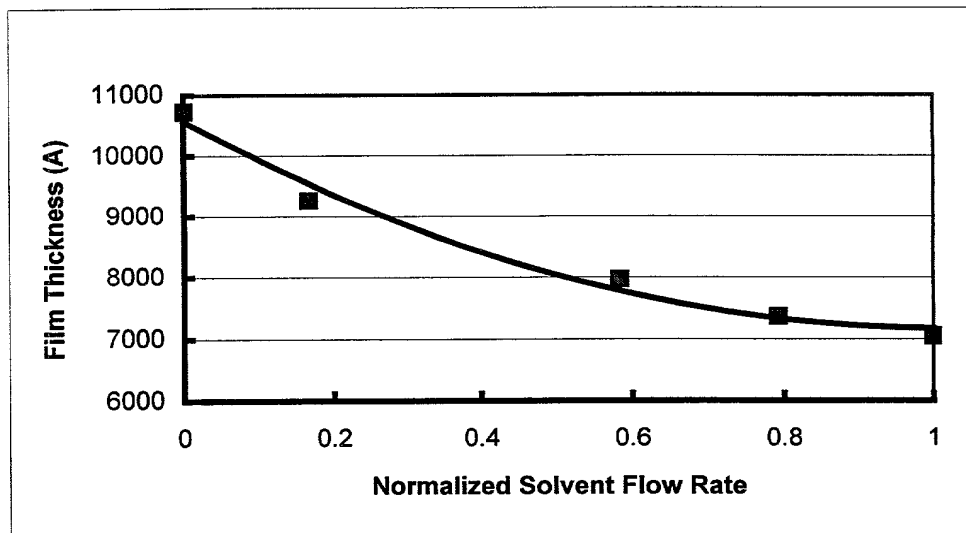


Figure 3a) Mean resist film thickness as a function of solvent concentration at a fixed drying spin speed . Mean film thickness can be varied close to 4000Å by varying the solvent concentration at a fixed 2000 rpm.

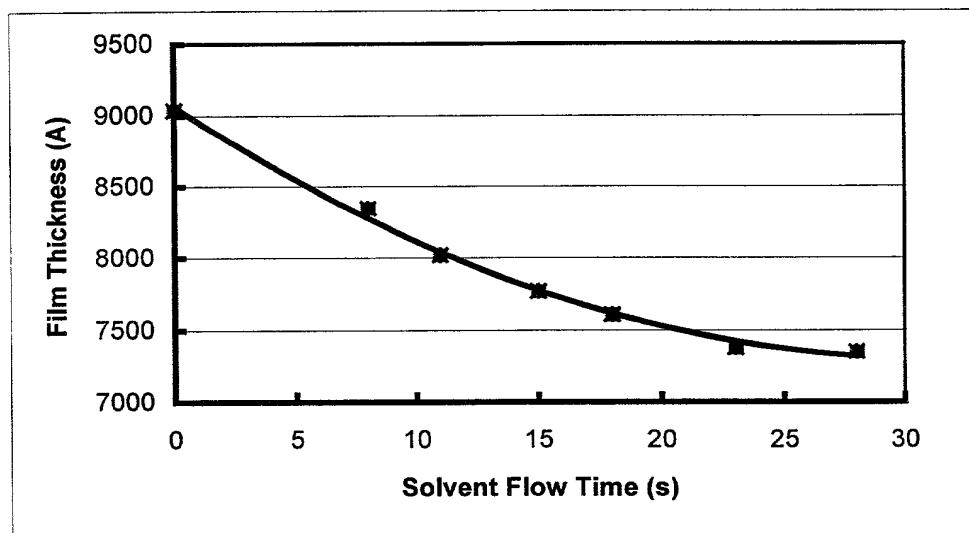


Figure 3b): Film thickness as a function of solvent flow time for a working example.

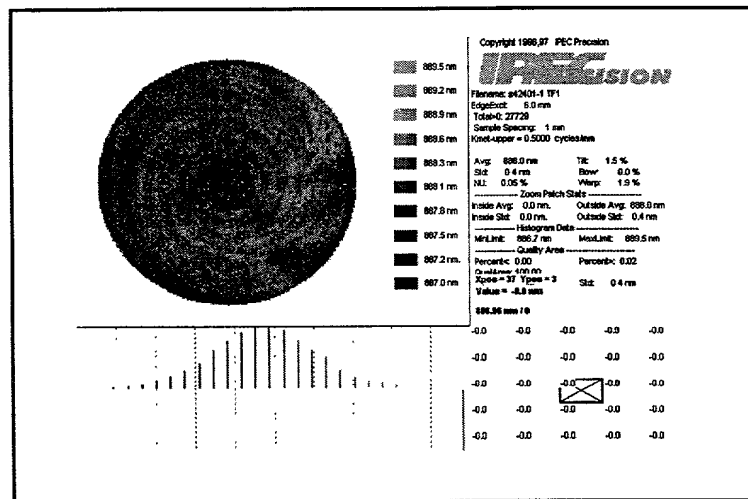
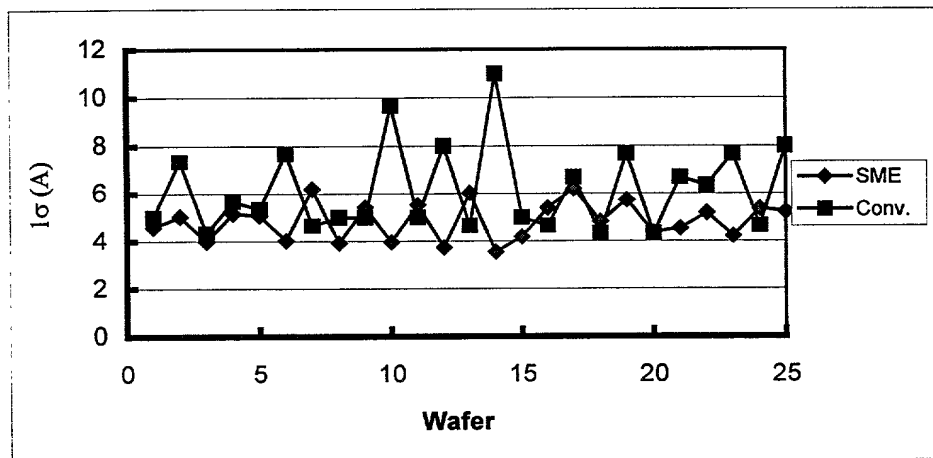


Figure 4: A typical film thickness profile, as measured by 30,000 pts film thickness measurement tool, has a  $1\sigma$  uniformity of  $4\text{\AA}$  (0.045%) for 8880 $\text{\AA}$  target thickness.



	Conventional Coater	Invention
$1\sigma_{ave}$	5.67A	4.86A
$1\sigma_{band}$	4.5A	2.2A

Figure 5) Film uniformity comparison between the invention (SME) and conventional spin coaters.

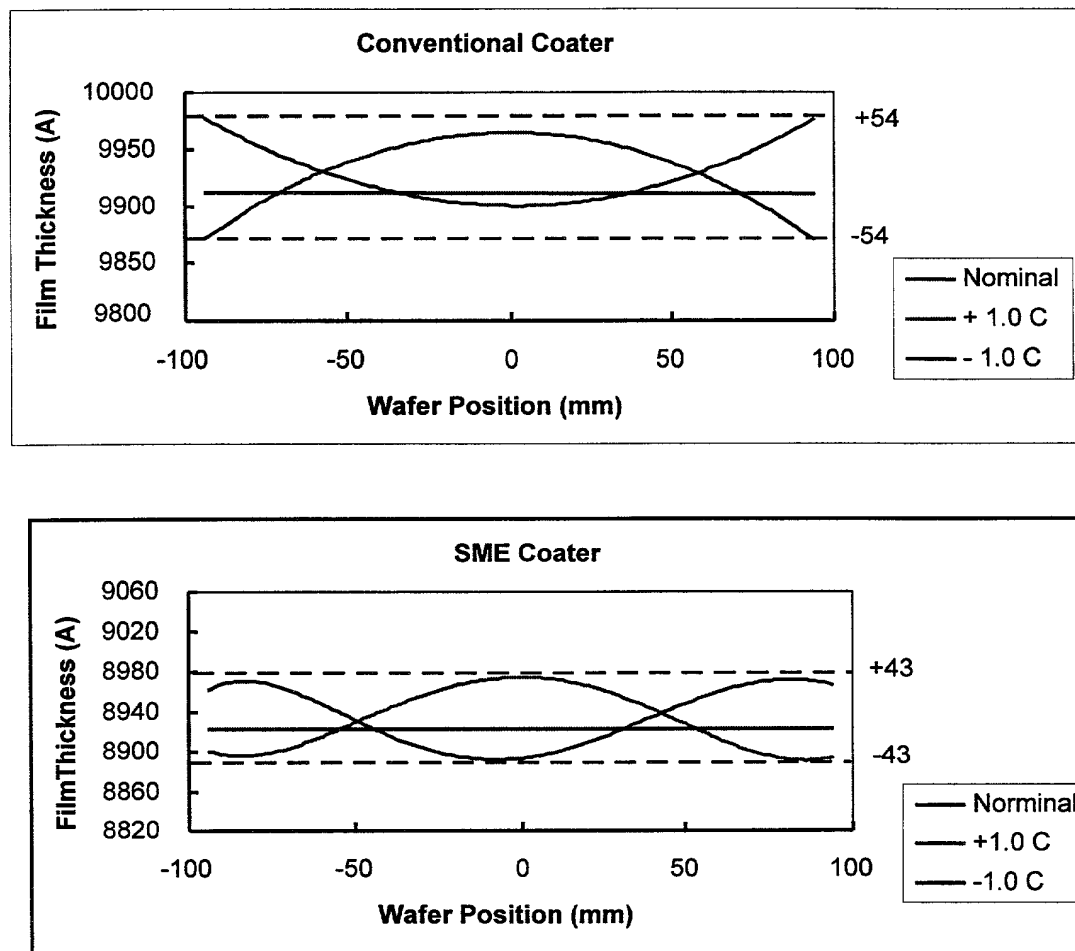


Figure 6: Resist temperature latitude comparison between the invention (SME) and conventional coaters for 200mm wafers. The SME coater resist temperature latitude of film uniformity is 36% wider than that of a conventional coater.

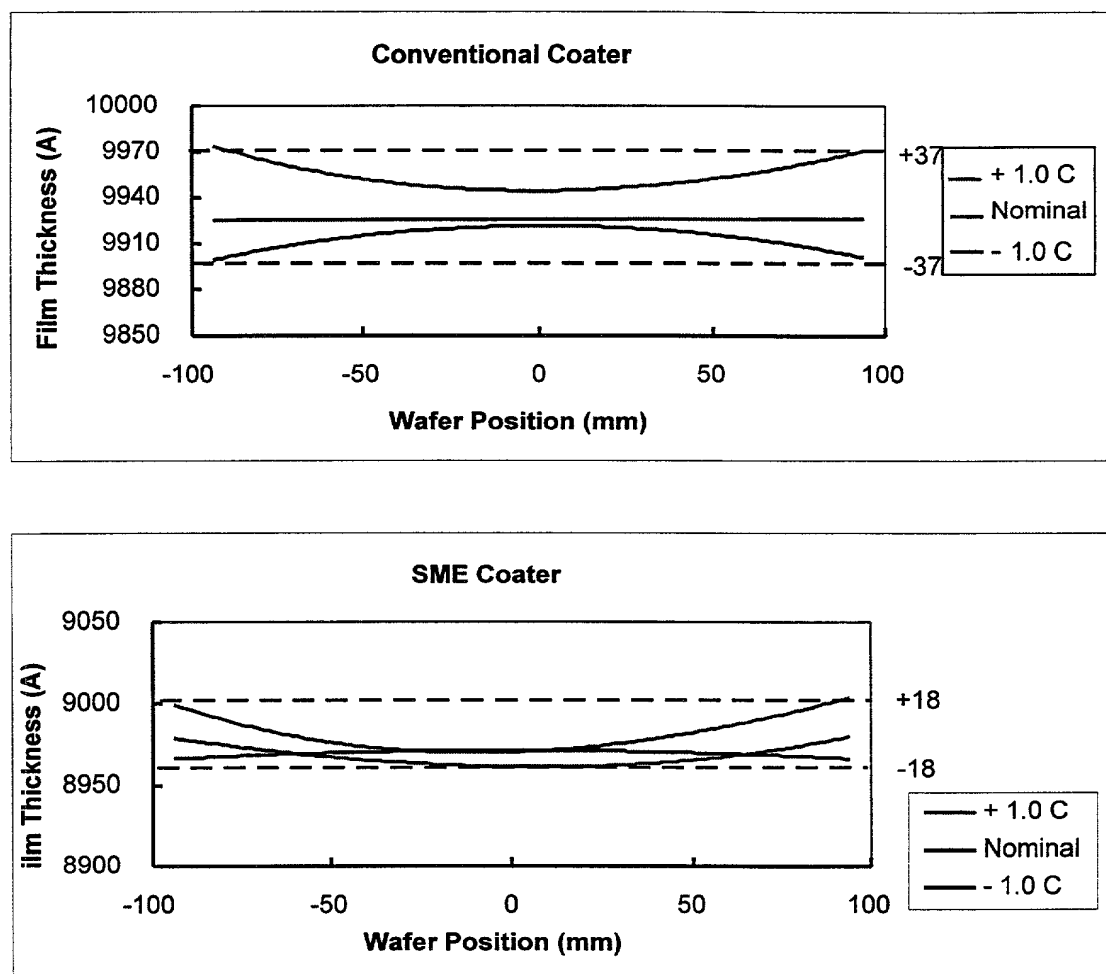
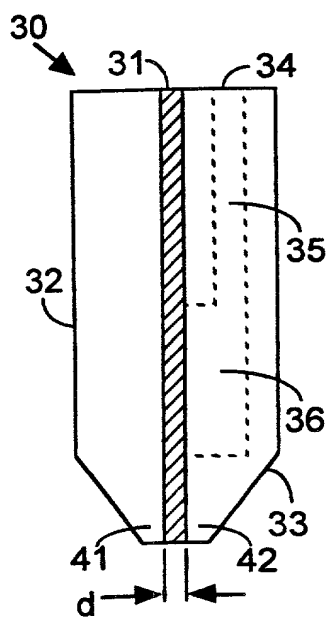
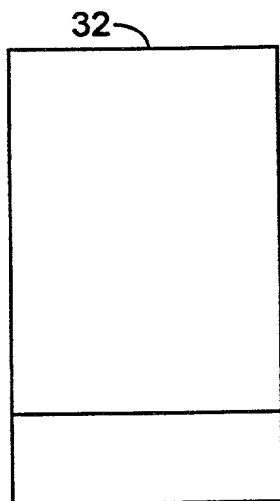


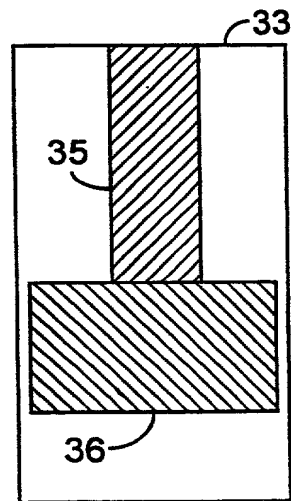
Figure 7: Chill plate temperature latitude comparison of the invention (SME) and conventional coaters for 200mm wafers. The SME coater chill plate temperature latitude of film uniformity is 43% wider than that of a conventional coater.



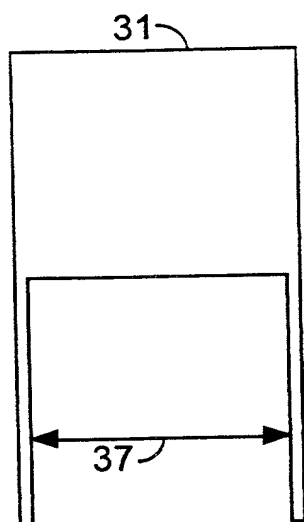
**FIG. 8**



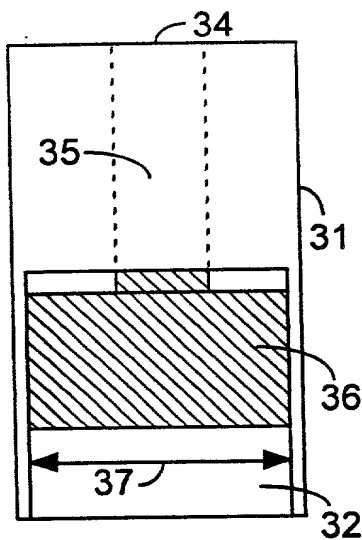
**FIG. 9**



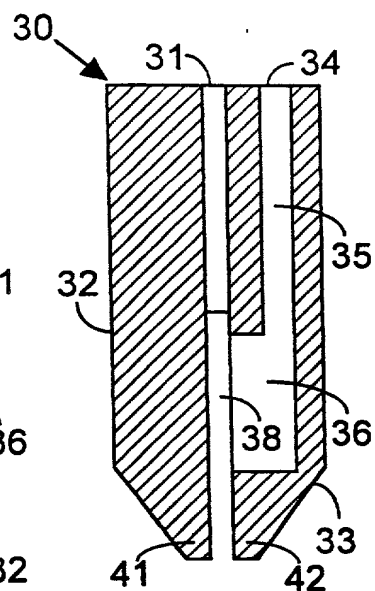
**FIG. 10**



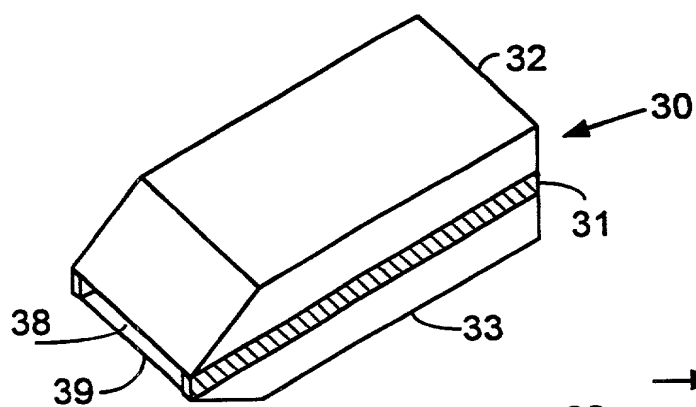
**FIG. 11**



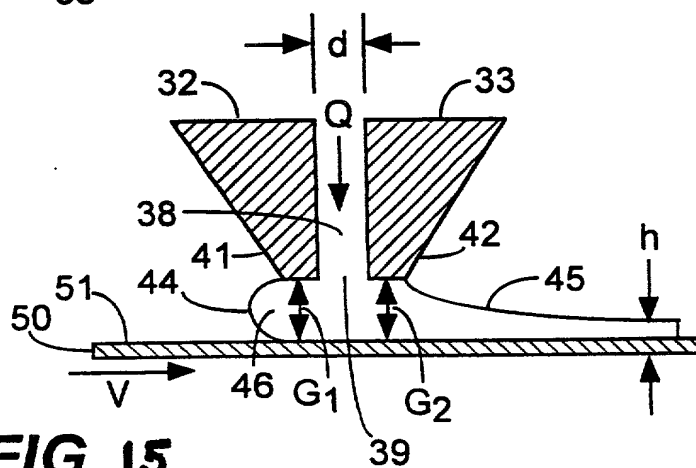
**FIG. 12**



**FIG. 13**

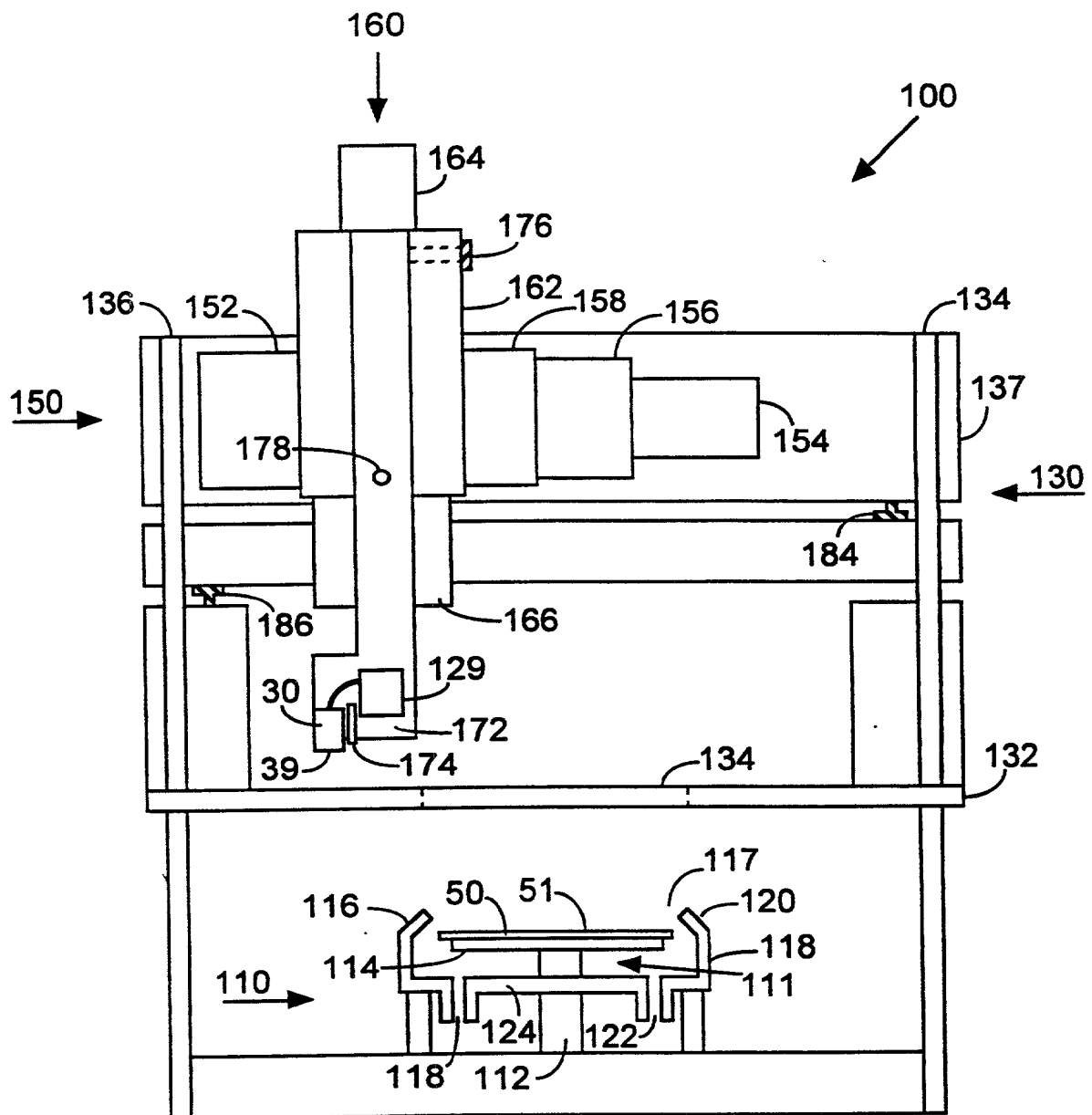


**FIG. 14**

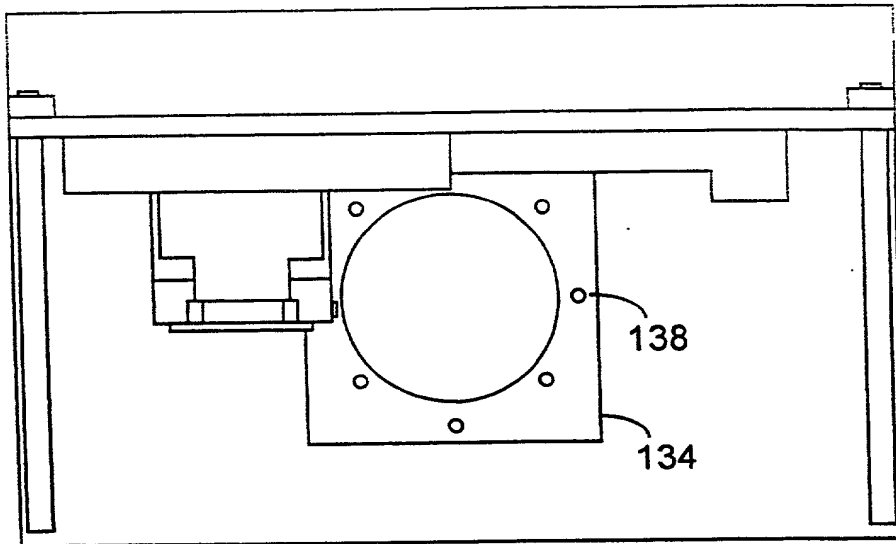


**FIG. 15**

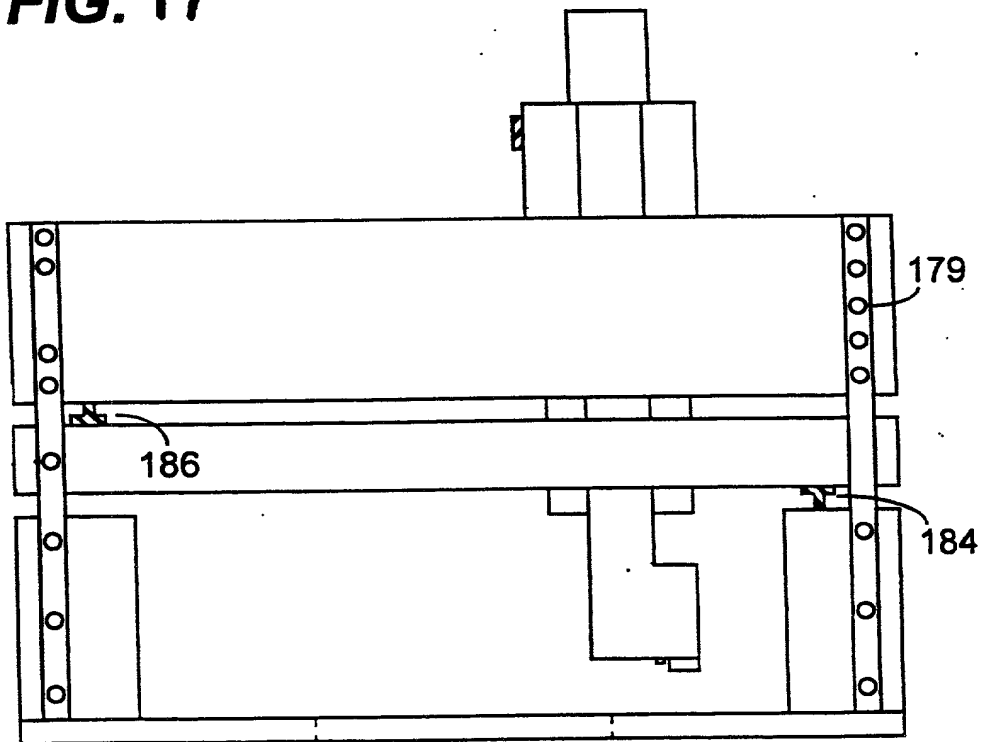




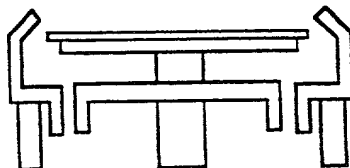
**FIG. 16**

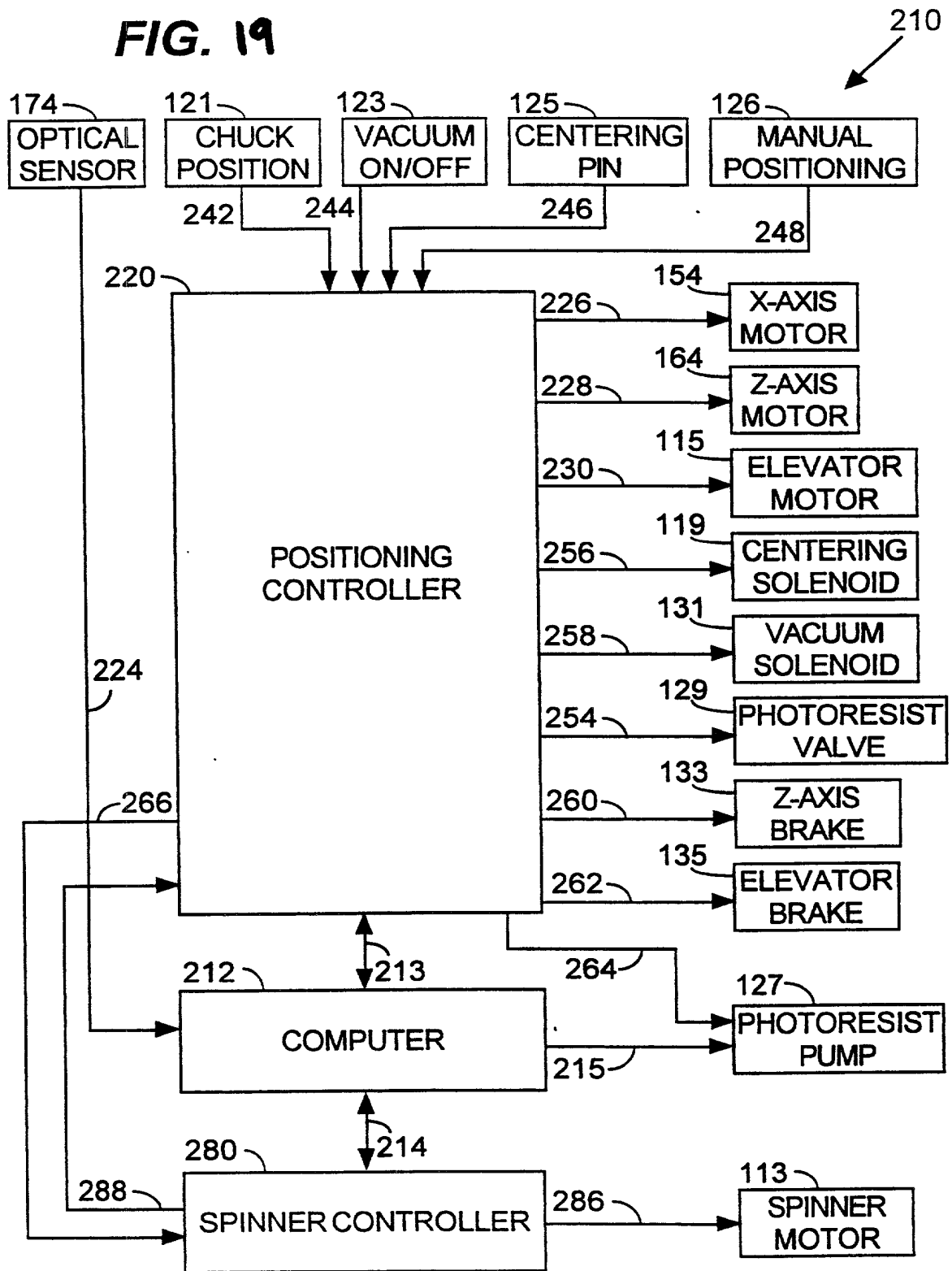


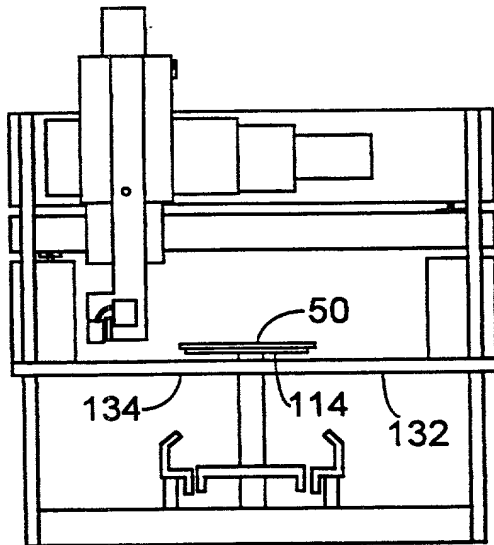
**FIG. 17**



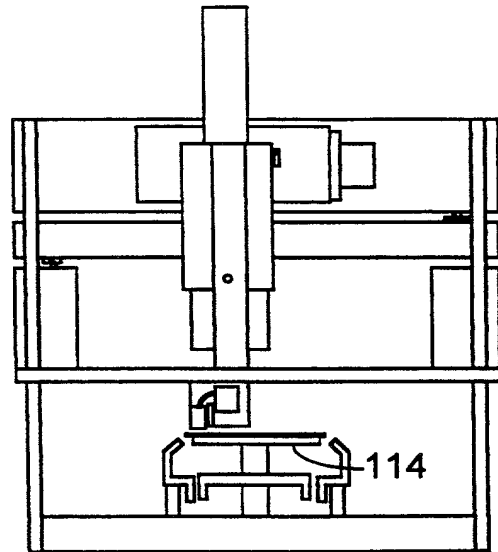
**FIG. 18**



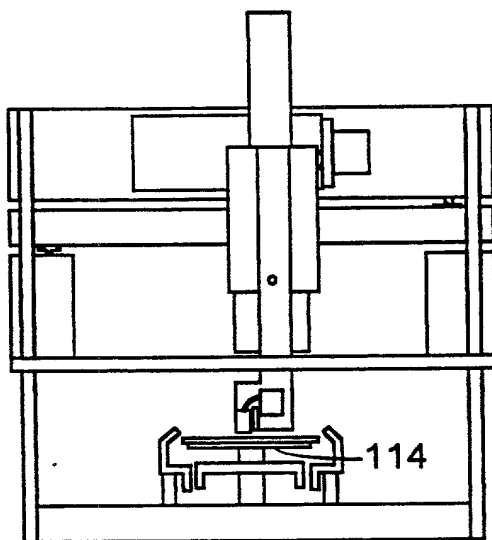




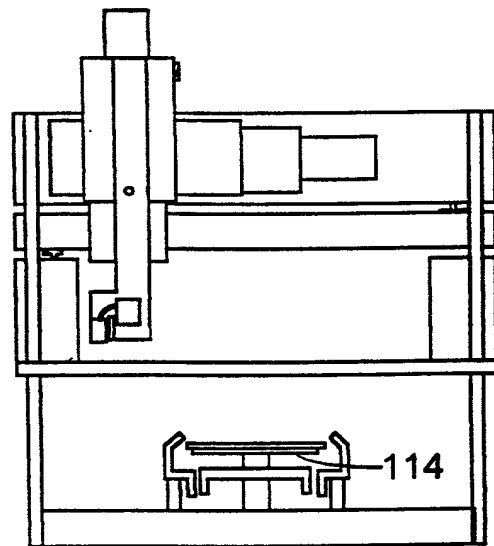
**FIG. 20**



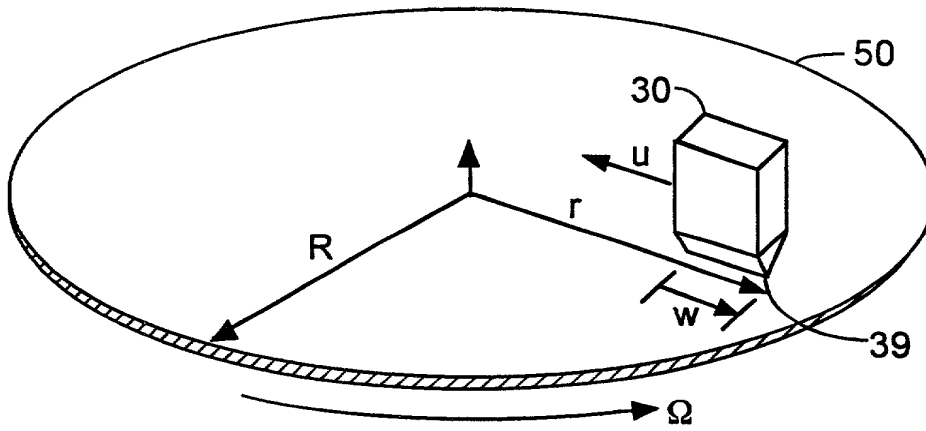
**FIG. 21**



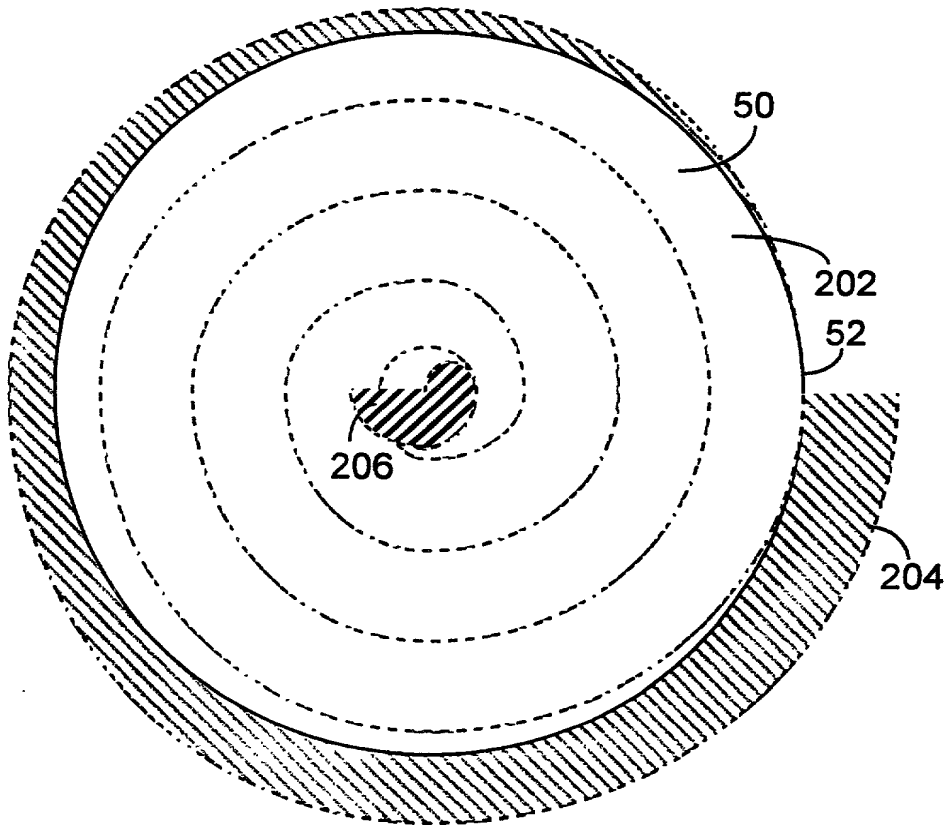
**FIG. 22**



**FIG. 23**



**FIG. 24**



**FIG. 25**